Getting into COSMOS Fantasy games

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1 Introduction

Welcome to the world of COSMOS Fantasy games! Hopefully this simulation of fantasy nations at war will give you many hours of enjoyment in the time to come. This guide has been written to be your first introduction to the game system and to help you getting going running your fantasy empire. This is not the rule book for the game, though it tries to explain all the basic rules and mechanisms through examples. Ideally you should be able to sit down with your game set-up, the scenario description, the unit type tables and this guide and play your first few turns without opening the rule book, learning by doing. The full complexity of the game system as laid out in the somewhat intimidating 80+ page rule book can be hard to digest and the guide is therefore designed to be a gentler introduction.

This guide will tell you how to decipher your set-up and turn results, how to strengthen the economy of your nation, how to recruit troops and how to lead those troops into battle, conquering new land and new cities for your glorious nation. The text is a mix of explanations of game mechanisms, tips on what to do and what not to do, step-by-step recipes for tasks you commonly need done in the early turns and examples of orders. The guide is intended for reading while referring to your set-up and while writing your first orders and you should start writing your orders as you go along rather than read the entire guide first. The guide does *not* cover all of the rules and does *not* go into all the gritty details with all the rules that *are* covered. It is not intended for (nor very good as) a reference if you need to look up some rules. The rule book is the ultimate reference and you can use the index in the back of it to find the exact rules you are looking for.

Once you have played a few turns and have a feel for the game mechanisms you should probably read the rule book to get everything completely into place and also find out about all the more advanced aspects of the game not covered here.

The examples in the guide are almost all taken from the set-up for the nation "The Blue Knighthood" in the introductory scenario "Throne of Cofain". If you would like to see the complete set-up report the examples are taken from, you can get it from the *pbem.dk* web site at `http://www.pbem.dk/cofain/resources.html`. If you do not have your own set-up yet you should definitely get the "Blue Knighthood" set-up to have something to refer to while reading the guide, but waiting for your own set-up is recommended. Note that the "Blue Knighthood" (BK for short) is a typical human "military" nation and the advice in this guide is most appropriate for that type of position. The same mechanisms which govern the BK nation also govern typical non-human military nations such as elves, dwarves or gnomes, and you should therefore not have trouble using this guide if you play this kind of position. If, however, you are to play a mostly *magical* nation or special nation such as several of the positions in "War of the Dark God" you will have other concerns than those dealt with in this guide and will not be able to "translate" the examples directly to your own position, so in this case you might have to rely mainly on the rule book after all.

1.1 What you need

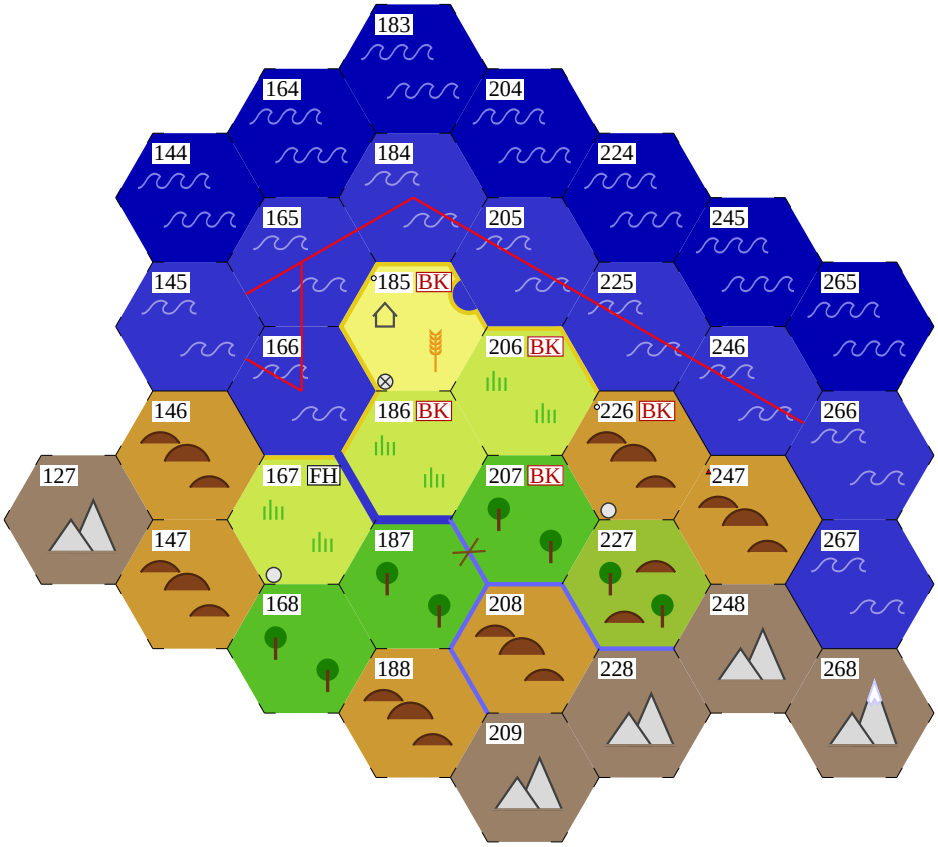
To get the most of this guide and get started in the best possible way, here is what you need in addition to this guide:

1. **Your set-up report.** If you have not joined a game yet, you should get the "Blue Knighthood" set-up report as described above.
2. **The unit type tables for your game.** Each scenario has its own unit type tables document, an overview of most of the unit types in the game. If you have not joined a game yet you should get the unit type tables for "Throne of Cofain".
3. **The scenario description for your game.** This gives you the background for the scenario as well as any special rules. You most probably read already it before joining the game.
4. **The COSMOS Fantasy basic game rule book.** Yes, you should even get the rule book. Although this guide is designed to take you through the first turn without having to read the rules you may still want to refer to parts of it to delve deeper into an area you feel is not adequately covered here. There are references to different sections of the rule book throughout this guide and in fact if you read the HTML or the hyper-text PDF versions and have the rule book in the same directory as the guide (or are reading this on line from the web site) you will be able to click on a reference in the guide and be taken straight to the right place in the rule book (for PDF files downloaded to your own computer, both documents must be in the same paper format, i.e. both "A4" or both "US Letter"). Section numbers referring to the rule book are shown in *italics*.

2 Understanding your turn report

If you are sitting with a turn report and everything seems clear enough just skip this section on an initial reading and come back later if it turns out there is information you do not know where to find. You *should* read section 2.3.5 though, as it describes the important mechanisms governing resource production in some detail.

Figure 1: The BK map from the set-up report.



Every turn you will get a turn report including an updated map of the part of the game world you can see (or have seen). When you first start in a game you will get a report for “turn zero” - this is your set-up. The set-up report and the normal turn reports have basically the same structure except that there is no description of the turn’s events in the set-up report (as no turn has been run yet) and that the set-up report contains a lot of “blurbs” about the game world, your nation, the types of leaders and other units you have and their capabilities. Every turn during the game you will probably have to refer back to the set-up report when you are preparing your orders.

Understanding the information in your turn reports is essential to play the game, so each part of your turn report is described below.

2.1 The map

The graphical map shows the part of the world you have explored so far. A terrain key can be found in the rule book, figure *2*. The map shows the terrain of each hexagon (hereafter referred to as hex), the number of each hex and who owns it (if any) as a one or two-letter nation code.

Figure 1 is an example map, taken from the set-up of the “Blue Knighthood” in “Throne of Cofain”. On this map you can see the lands surrounding the realm of the Blue Knighthood. The hexes marked BK are those owned by the Knighthood itself. Hex 167 is owned by another nation, “FH”, while all the other hexes in view are un-owned.

From the example map you may learn a few things about what you can expect to see with your units (and hexes and cities which also act as observers, although with less efficiency than your units). First of all, you can see that most hexes which are visible in the map are within two hexes of the starting hexes of the BK player. The exception are hexes 127 and 268 which are mountains and high mountains terrain respectively, both terrain types that can be seen from far away (and *vice versa*, from mountains and high mountains you can see further than from the flat plains). So when you send out scouts or other units you can hope that they will be able to see the terrain of hexes up to two hexes away, or three hexes if they are in mountains.

The second thing you should note is the red line running off the coast. This is a “sea lane”, a terrain feature which indicates where ships may sail. Sea lanes are an abstract terrain feature (there is not really a red line or dug-out channel) where real terrain features are such things as rivers, fords or bays (all visible on the example map). What you should note about the sea lane is that on the map it is shown as ending where it enters hexes 145 and 266. Of course the sea lane actually extends into those hexes as well, but this is not shown on the map because the BK player has no hexes or units sufficiently close to those hexes to “see” the sea lane. In general, you cannot “see” terrain features in hexes more than one hex removed from your observers. This means that at present the BK player cannot tell where the sea lane goes from 145 and 266, or e.g. whether there is a river between hexes 127 and 146. So even though you may see the basic terrain of a hex from a distance of 2 or 3 hexes you can only see terrain features from a distance of one hex or less.

The third thing to note in the example map is the small circle to the left of the hex number of hexes 186 and 226. This indicates that the BK player can see units in those hexes. The interior of the circle is white because the units are BK’s own. If there had been allied units present, the interior would have been green. Had there been neutrals, the circle would have turned into a square with blue interior, and had there been any enemies, a triangle wirth red interior would have been shown instead.

Hex 167 is not shown as having any units even though there is a city in it and it is highly unlikely that a city would be ungarrisoned. This shows that to spot units you have to get close with a unit of your own, preferably one which has good awareness, e.g. a scout. There could be any number of units in all the hexes surrounding the BK lands, possibly except 227 and 247 which are only one hex removed from the BK units in 226. In general a standard awareness unit can hope to see a standard mass unit (troops) from a distance of one hex unless the terrain is jungle. A scout may be able to see an individual (e.g. a leader) from a distance of one hex in favourable terrain.

2.2 The map notes

The map notes supplement the map by describing the locations and units you can see (and which are marked on the map). Here are the map notes accompanying the map shown above:

```
Hex 167: plains (FH)
   Fairplain [1812(FH)]: size 3 of 6
        Interior terrain: city
        City trade rating: 7
        City walls: rating:1, strength:4

Hex 185: farmlands (BK)
   Azure [1801(BK)]: size 8 of 15
        Iterior terrain: city
        City trade rating: 10
        City walls: rating:3, strength:11
      Azure Castle [1851(BK)]
           Interior terrain: structure
           Fortifications: rating:4, strength:14
      3101(BK*) Lord Turquoise (Noble): 10 w.p./100%
      3103(BK) High Priest: 10 w.p./100%
           Resources: holy mana:30
      3104(BK) Court Wizard: 8 w.p./100%
           Resources: enchantment mana:10 fire mana:20
      3108(BK) Knight: 10 w.p./100%
      3109(BK) Captain: 8 w.p./100%
      3111(BK) Heavy Infantry: 50/100%/100%
      3112(BK) Pikemen: 50/100%/100%
      3113(BK) Heavy Cavalry: 50/100%/100%

Hex 226: hills (BK)
   Sapphire [1805(BK)]: size 4 of 10
        Interior terrain: city
        City trade rating: 8
        City walls: rating:3, strength:11
      3102(BK+) Lord Steel (Noble): 10 w.p./100%
      3110(BK) Crossbowmen: 100/100%/100%
```

The single most important key to reading the map notes correctly is to take proper note of the *indentation*. Units and locations inside a location are shown immediately after the location, indented relative to the location itself. Take a look at the location

"Azure" above. It is indented relative to the line "Hex 185" to show that it is inside that hex. "Azure Castle" and the units 3101 *et cetera* are indented relative to "Azure" to show that they are inside the city rather than outside the city in hex 185. Look carefully at the the lines for "Azure Castle" and unit 3101. These lines are indented the same amount, showing that the castle and the unit are both inside Azure and that 3101 is *not* inside the castle (the castle is in fact empty).

In the map notes you can see most relevant information about the cities, castles and other locations on the map (the information you cannot see here, such as how much it costs to expand a city or how much is produced and consumed by a city, is given in the blurb describing the location, see section 2.4). For cities you can see their current size, their trade rating and their fortifications. For castles you can see their fortification data. For all locations you can see their interior terrain if that differs from the terrain around them (e.g. the terrain inside a stone circle is the same as the surrounding terrain).

Units in the map notes are listed with a summary of their current combat data. For individuals (such as 3101 above) this consists of their current number of wound points and their combat efficiency (100% for an unwounded unit). For mass units (troops) such as 3111 above it consists of first the number of individuals in the unit, then how many wound points the unit has left as a percentage of the maximum possible for the unit (100% for an unwounded unit) and finally the current combat efficiency (100% for an unwounded unit). This can be seen both for your own units and the units belonging to other players. For your own units you can additionally see any resources carried by the unit (such as the personal mana that 3103 and 3104 above "carry" around). If a unit is currently moving it will be noted on the map notes as well. Some units not belonging to yourself may be annotated with a phase number (e.g. "phase 8"). This means that you last saw the unit in that phase and do not know what happened to it later in the turn (e.g. because it moved out of range or your unit which observed it moved away).

Note that the map notes do not give full details on your own units and locations. For the detailed information you need to give your units orders you should refer to the *status* section of the turn reports, see section 2.3.

2.3 Your nation status

After the map notes follow a detailed status of your nation, including your locations and units.

2.3.1 General status

First there will be a box where your current number of victory points is printed. You generally want to get more of these, but how you do it depends on the scenario and you position. For most positions though it is a matter of destroying enemy troops in battle and taking new cities (and expanding your existing cities). The unit type tables for your game list the victory point values for all common units.

The next item will be a box summarising your economy, mainly your gold income. for the BK nation at set-up it looks as follows:

```
Income from taxes: 450 gold
Income from city trade: 124 gold
Other gold production: 25 gold
Total income: 599 gold

Manpower produced this turn: 630
```

The first three lines break down the nation's gold income. There would be a line for gold mines if BK owned any of those and another for oases if BK owned some. The "Other gold production" is usually the gold produced directly by the hexes of the nation (25 gold from a hills hex in this case, how much each terrain type produces is listed in the "Game world" section of your set-up report, see section 2.4.1). The city trade income is (of course) generated by the cities. It is proportional to the size and trade rating of the cities owned by the nation (section *6.6.3* in the rule book). Finally, the taxes which is the most important source of income is generated by the part of the population which is not currently drafted into the army and is directly proportional to how many men (or elves or whatever your population consists of) you have in your nation pool (see section 2.3.5 and the rule book section *6.6.1*). The same with *manpower*, this is also proportional to your unallocated population (rule book section *6.6.2*). Manpower is used for work like expanding cities or building fortifications, or to work in your mines if you should acquire any.

Next will be a summary of your *navy*, if you have any. For an explanation of this and how to use your navy, refer to section *12* in the rule book. What you should note is that it costs something to maintain your ships, so if you are not going to use them you might as well scuttle them right away or possibly keep just one to allow your scouts to move at sea (see section *12.3* in the rule book on how to scuttle your ships).

After the navy report will be a summary of which units are your *major characters*. It will also list how many major characters you nation may at most have at one time (your *major character limit*). Your rulers and spell-casters will all be major characters, as will heroes and knights, while purely military leaders such as generals and captains are not considered major characters. The limit on major characters means that you must plan your character recruitment carefully, e.g. is it most important to recruit a Hero or an Acolyte for your final major character slot.

Next in your status report will be an overview of the resource production and resource usage of your nation. This is so important that it is treated separately in section 2.3.5 below.

Then there will be a section entitled "Administration". This lists three important things: First your *administration points* which is roughly speaking how many orders you can give in addition to those you give to your leaders (rule book section *3.2*). Second, which unit is the ruler of your nation (relevant for extra administration points) and which unit (heir) will replace the ruler if the ruler should be eliminated. Third, the *home* of your nation which is important because this is where all your leaders will go to when they have to flee from battles (rule book sections *5.2* and *9*). It is usually possible to change your home but it is expensive and in general you would much rather just take very good care of the one you have.

The last thing listed before your possessions is your *policies*. This is how your units are instructed to react towards units of other nations. Nations will only be listed if they are your declared enemies or allies - if a nation is not listed it means you are neutral towards it. Usually you want to leave your policies as they are unless you manage to ally with another nation. See section *5.4* in the rule book about how to change policies.

2.3.2 Controlled land

This section of the status report lists all the hexes your nation owns. Usually it will just list the terrain of each hex plus any rivers in the hex (rivers contribute to the production of resources in the hex), but sometimes there will be a warning if someone is trying to take away (control) the hex, so it is always a good idea to inspect this section carefully for something looking like this:

```
Hex 186: plains
   Someone is attempting control!
   2 hex sides of large river
```

In the map notes you will be able to see which enemy armies are in your hex and thus who is trying to take the hex, see section 10.

If there are resources stored in the hex they will also be listed in the "Controlled land" section as well as in the map notes.

2.3.3 Locations

In the section of your status report entitled "Locations etc." all your cities, castles, mines and other locations will be listed. A city might look like this:

```
1801 Azure at 185
   Size 8 of 15
   City trade rating: 10
   Income from trade this turn: 88 gold
   City walls: rating:3, strength:11
   Cost to improve city wall strength, per point: 24 gold and 48 manpower
   Cost to improve city wall rating to 4 (at strength 12): 96 gold and 192 manpower
   Cost to expand one size increment: 50 gold, 50 wood and 100 manpower
    - plus cost of expanding city walls: 33 gold and 66 manpower
```

As you can see, some of the information in the map notes is repeated here (such as size, trade rating and walls information). But there is some extra information, namely the actual trade income from the city this turn and the cost of improving the fortifications or expanding the city. Trade income is proportional to the size of the city and to its current trade rating which is found as its basic trade rating as listed (10 in the example above) plus half the rating of the city walls, rounded down (for a total current trade rating of 11 in the example above).

A city will produce population as well as trade income but its population production is not listed in the "Locations" section, it can be found in the blurb describing the city instead (see section 2.4). What is worth to know is that its production is proportional to its size.

All cities have a *size*, given as a number of *size increments*. Azure in the example above has a current size of 8 but may be expanded to a maximum size of 15. Economically it is usually a good idea to expand your cities early in the game.

The listing for a castle may look like this:

```
1851 Azure Castle in 1801 (map position 185)
   Contains: 0 of 5000
   Fortification rating:4, strength:14
   Cost to improve fortification strength, per point: 20 gold and 40 manpower
   Cost to improve fortification rating to 5 (at strength 15): 75 gold and 150 manpower
```

Aside from the fortification rating and strength (which can also be found in the map notes) there is a line describing how much room the units inside the castle (if any) take up. The castle above contains no units and thus zero of its 5000 spaces are taken up at the moment. A human takes up 4 spaces and a mounted human takes up 12 spaces, so it wound take 1250 footmen or just over 200 horsemen to completely fill up the castle (for details on how much space other types of troops require see the unit type tables for your game). A castle can never be over-filled, so you are neither allowed to move into a castle with a force which is too large nor to recruit units inside if this would over-fill the castle. Other types of locations may also be limited in how many units there are room for inside, cities and oases being the most important exceptions.

A word about the *fortifications* of cities and castles. As you can see from the examples above, fortifications have both *rating* and *strength*. The *rating* is roughly speaking the height of the walls and is what gives units inside protection from attackers outside, the higher rating the better, see section 12.1. The *strength* is roughly speaking the thickness of the walls and affects attempts to damage the walls (see the rule book section *16.3*). The strength also limits how high a rating the walls can have: no fortifications can have a rating higher than one third of their strength, rounded down.

You pay a gold upkeep for your fortifications. For castles you pay 5 gold per point of rating per turn, e.g. 20 gold per turn for Azure Castle in the example above. For cities you pay one gold per point of rating per size increment of the city per turn, e.g. 24 gold per turn for the city walls of Azure in the example above. If you are pretty certain that you will not be attacked it is generally a good idea to reduce the rating of fortifications to 1 (or to 0 to completely remove them). Note however that castles reduced to zero rating are completely removed, potentially lowering the production of the hexes they were in and depriving your nation of administration points (rule book section *13.2*). Note also that it will generally be very expensive and take a lot of time to build high rating fortifications again later if you should need them.

Improvement and reduction of fortifications is described in the rule book section *16.2*.

2.3.4 Units

In your status reports, units will be listed ordered by the *force* they are in, with forces ordered after the unit number of the force leader. The listing for two forces could look like this:

```
3108 Knight: 10 w.p. at 1801 (map position 185)
   Tactics: flee
   Force:
   3113 Heavy Cavalry: 50*4 w.p. at 1801
      Tactics: charge
3109 Captain: 8 w.p. at 1801 (map position 185)
   Tactics: flee
   Force:
   3111 Heavy Infantry: 50*4 w.p. at 1801
      Tactics: defend
   3112 Pikemen: 50*4 w.p. at 1801
      Tactics: defend
```

The force leader is listed first, then come the units in his force (one for 3108 and two for 3109), indented to show they are in a force rather than independent. An independent unit is the same as a force consisting of only one unit (the leader). Note that all types of units can be force leaders and all types can be subordinate, so it is possible (but not usual) to have a unit of infantry lead your general.

There are two main types of units in the game: individuals and mass units. Individuals are leaders and characters such as 3108 and 3109 above. Mass units represent troops such as 3111, 3112 and 3113 above. There is no difference in how you get them to do things but individuals usually have special capabilities (such as recruiting troops or controlling land) while most mast units can just move around and fight.

For each unit is listed its current wound status and its position. The wound status of an individual is a number of wound points, abbreviated w.p. The would status of a mass unit is show as the number of individuals which has a given number of wound points, e.g. 50*4 w.p. for a unit with 50 individuals who all have 4 w.p. A force with a wounded mass unit could look as follows:

```
3102+ Lord Steel (Noble): 8 w.p. at 1805 (map position 226)
   Tactics: flee
   Force: (carries: 50 of 106)
   3110 Crossbowmen: 23*4, 17*3, 10*1 w.p. at 1805
      Tactics: defend
```

The unit 3110 above has 23 individuals with 4 w.p., 17 individuals with 3 w.p. and 10 individuals with 1 w.p. (these 10 are so badly wounded that they are *incapacitated*). See the unit type tables to see how many wound points each type of unit has and how badly an individual must be wounded to be incapacitated. Most units will regenerate lost wounds given enough time.

Each unit is also listed with its current *tactics*. See section 9.2 about this.

If a unit is carrying something it will be listed under that unit. For the force as a whole it will be indicated how much weight is carried by its units (carried weight slows down movement, see section *11.1.1* in the rule book). Note that incapacitated members of a force have to be carried as well, so that explains why the force of 3102 above is carrying a weight of 50 (each incapacitated crossbowman weighs in at 5).

As the game progresses you will find that there are a lot of other things which might be listed for a unit such as its morale or active enchantments. Refer to the index of the rule book when something is not self explanatory.

2.3.5 Resources

The resource report of your nation is a table giving an overview of the resources at your disposal, your current resource production and your resource usage. In the set-up report of the BK nation it looks as follows:

Resource	**Pool**	**Distr.**	**Prod.**	**Used**	**Lost**	**Upk.**	**Poten.**
gold	700	0	0	0	0	256	599
food	2732	0	0	0	0	610	1293
wood	1775	0	0	0	0	0	475
iron	150	0	0	0	0	0	150
horses	204	0	0	0	0	0	127
men	1500	0	0	0	0	0	175
manpower	630	0	0	0	0	0	630
arms	450	0	0	0	0	0	150
holy mana	0	30	0	0	0	0	15
enchantment mana	0	10	0	0	0	0	5
fire mana	0	20	0	0	0	0	10

Note that the columns **prod.** (for produced), **used** and **lost** contain only zeroes. This is because no turn has been run yet and therefore only the current status (**pool** and **distr.** (for distributed)) and the production forecast **poten.** (for potential) are meaningful.

From the resource table you can see how many resources are currently in the nation **pool**. These are the resources you can use next turn. Resources in the nation pool can be used by any of your units or locations. So from the example above we can see e.g. that BK has 450 arms available for recruiting units in the first turn. *Mana*, which is used by spell-casters, is usually not in the nation pool where it can be used by everyone but rather it will be distributed as personal mana between your spell-casters. Such mana (and any other distributed resource) is listed in the **distr.** column of the resource table. You will then have to look in the "units" section of your status report to find out exactly which of your units have the mana.

The **upk.** column shows how much will have to be spent next turn on upkeep of your current units, locations, navy and whatever else requires upkeep (usually the same amounts will have been spent on upkeep this turn, but e.g. a city under siege will not have used food this turn but will still be counted in the upkeep column because the siege might have ended next turn). We can see above that BK should expect to use 256 gold next turn on upkeep.

The **poten.** column shows the expected (potential) production next turn, provided no changes occur which affect production (such changes occur almost every turn so you should always keep in mind how your actions will affect your production). Production happens at the *end* of the turn but *before* upkeep has to be paid, so if you deduct the expected upkeep from the expected production you can see how large your surplus production is. You should always try to keep your upkeep lower than your production because otherwise you will have to draw upkeep from your nation pool and if you do not have enough for your upkeep your units will be dissolved or your cities will be reduced in size and/or lose their fortifications (see section *6.4* in the rule book).

If you look at the resource table for BK above you will see that with a production of 599 gold per turn and an upkeep of 256 gold per turn, BK can expect 343 gold to be added to the nation pool at the end of each turn if nothing changes. This kind of

simple calculation is however true only for non-perishable resources such as gold, arms and iron. Perishable resources such as wood and food as well as the abstract *manpower* resource follow a different rule, and resources representing your population and livestock follow a third rule.

To properly understand the complex mechanisms governing population, livestock and perishable resources it is useful to see an example of a resource report from a game turn and not just from the set-up turn. So here is what the resource table for the BK nation for turn 1 would look like if no resources were used and the production was unchanged from the set-up:

Resource	**Pool**	**Distr.**	**Prod.**	**Used**	**Lost**	**Upk.**	**Poten.**
gold	1043	0	599	256	0	256	599
food	2732	0	1293	610	683	610	1293
wood	1775	0	475	150	325	0	475
iron	150	0	150	150	0	0	150
horses	204	0	127	0	127	0	127
men	1500	0	175	0	175	0	175
manpower	630	0	630	0	630	0	630
arms	600	0	150	0	0	0	150
holy mana	0	45	15	0	0	0	15
enchantment mana	0	15	5	0	0	0	5
fire mana	0	30	10	0	0	0	10

The **prod.** column, which shows the turn's actual resource production, agrees with the **poten.** column showing the expected production for next turn, indicating that nothing disrupted BK's production this turn. Furthermore the two columns agree with the **poten.** column of the set-up report, so there were no surprises at all.

The **used** column is equal to the **upkeep** column for *gold* and *food*, indicating that all gold and food used went towards the upkeep of units, locations and the navy. You can also see that 150 *iron* and 150 *wood* was used. These resources were in fact used to produce the 150 *arms* which BK produced this turn. At the end of the turn, before any wood decays (see below) and before any new iron is produced, most nations will convert wood and iron to arms at the rate of 1 unit of wood and 1 unit of iron to 1 unit of arms. So your arms production will be limited either by the wood available or the iron available and the limiting resource will be completely used up every turn (iron in the case of BK).

If you look at **lost** column of the table above you will see that some *food*, *wood*, *horses*, *men* and *manpower* was lost in this turn.

Food and *wood* are *perishable* resources and a certain percentage of the food and wood in your pool at the end of the turn will perish (after arms production but before food and wood production and before upkeep). The percentages are: 25% of food and 20% of wood. If you look at *food* in the table above you will see that 683 units were lost, corresponding to 25% of the food pool available at the start of the turn (the resource table from the set-up showed that there were 2732 units of food in the pool). If you compare the resource tables from the set-up and from turn 1 you will note that the food and wood stores in the nation pool are unchanged after turn 1 (as are the other resources for which as loss is listed). This is because with a fixed production, a fixed usage and a fixed percentage loss each turn the resource pool will eventually reach an equilibrium where the production is exactly equal to the combined usage and loss. The resource pools of perishable resources are at the start of the game equal to their equilibrium, so therefore they will only change if the production or the usage changes. So even though you cannot see directly in your set-up report what your resource loss will be, you *do* know that after all losses and usage has been deducted and new production added the pool will be unchanged.

Now here are some examples of how different actions will affect the wood and food balance of the BK nation. If BK gain some more food and wood producing lands their production will become higher than their combined usage and loss and therefore the pool will start to grow until it reaches its new equilibrium level (this will take several turns). Similarly if BK should lose some land, the pool will slowly decay to its new equilibrium. If BK uses some wood e.g. to build a ship but the production and usage is unchanged then the pool will suddenly be below its equilibrium and therefore slowly grow until it reaches its equilibrium again. If BK increase their iron production then more wood will be used to produce arms every turn and as the wood usage goes up, the pool will slowly go down until it reaches its new equilibrium. If BK expands a city or recruit new units then the food upkeep will go up and thus the food pool will have a new, lower equilibrium and will slowly adjust to that.

Manpower is an abstract resource which represents the amount of work you can order your population to do for you. Work cannot be "saved" from turn to turn and therefore all manpower which you do not use will be lost. In the turn 1 resource table above we can see that as BK did not use any manpower, all 630 units of manpower were lost but 630 new units of manpower were generated for potential use next turn.

Population and livestock (men and horses for BK) have the most complex production and loss mechanism of all the resources. Both work in principle just like food, i.e. a certain percentage is lost every turn but this loss is compensated by your production

and therefore the pool is unchanged from turn to turn. The population and livestock "pools" are however not just those listed in the resource table.

Your population pool really consists of both your "unassigned" population which is what you see in the **pool** column of the resource table and your "assigned" population which is the total population in your military units. Whenever you recruit new units you will be moving population from you unassigned pool to your military by paying the population cost of the units. If you dissolve units you will move the population that went into creating them back into your population pool. Recruiting and dissolving units thus does not change your total population and it is your total population which is in equilibrium with your production, not your population pool. So if the BK nation recruits a new unit of 100 men the *men* pool of BK will go down by 100. As the loss of men is computed based on the total population and not just the free population in the pool this loss will be unchanged (and in equilibrium equal to the production) and therefore the pool of men will *remain* 100 less than before, even after a few turns. This is in contrast to e.g. the use of wood to build a ship mentioned above where the wood pool would slowly recover to its old level over time. Your population pool will only begin to grow if you either increase your population production (by expanding or conquering cities or controlling new land) or when some of the men in your units are killed in battles bringing your total population below the equilibrium level.

Livestock follow the same mechanism as population, so when you recruit units requiring e.g. horses the animals are moved from you pool to your new units but still count towards your total livestock. So if BK use 100 horses for a unit there will be 100 horses less in the pool thereafter.

This mechanism of a certain production of population giving a certain total population in equilibrium is extremely important to understand as it has a major impact on your whole economy. The reason is that *only the unassigned population in your pool pay taxes*. So when you assign people to military service by recruiting units you at the same time reduce your tax base. The BK nation for example has a *tax efficiency factor* of 30% meaning that for every 100 men in the unassigned pool BK will get 30 gold in taxes each turn. So let us assume that BK recruits a unit of 100 Heavy Infantry. The cost of recruiting 100 Heavy Infantry is 60 gold, 300 arms and 100 men. The nominal upkeep for the unit is 30 gold and 100 food per turn. But taking 100 men out of the tax base means losing 30 gold in tax income every turn, so the *real* cost of having the unit is actually 60 gold (and 100 food) per turn. This loss of tax income needs to be taken into account when you are considering which units to recruit as it effectively makes the light, cheap units more expensive than they seem.

2.4 Blurbs

At the end of the set-up report there will be a section entitled "Rules & Information". This contains a lot of information about the game world in general, your nation, the types of units available to you and the powers they have. Information is given in the form of "blurbs" (some of which can be rather long), e.g. one blurb per type of unit. Over the course of the game you may get new blurbs as you discover more about the game world, e.g. as you encounter new types of units.

2.4.1 Important blurbs in your set-up

The set-up report contains a lot of blurbs, most of which you will be referring to throughout the game.

One rather long blurb will be entitled *The game world*. This gives some general information about the size of the game map and also the names, numbers and abbreviations of the nations in the game. It will also give a description of the *terrain types* which can be found in the game. This list is important because it is the only place in which you can see the resource production of hexes of different terrains. For example, it might be stated that one hex of woods produces 150 food, 500 wood, 20 wolves, 10 men, 3 elves, 5 dwarves, 5 gnomes, 25 goblins and 20 nature mana per turn. This is most likely not what a hex of wood you own will really produce because this production has to be multiplied by your nation's *production efficiencies* which are listed in the blurb entitled "Your Nation" (see below). For the BK nation which has 100% production efficiency in food, wood and men and no production efficiency for the other resources potentially produced by a woods hex a hex of woods terrain will produce 150 food, 500 wood and 10 men per turn and nothing else. For a nation of wood elves with 100% production efficiency for food and elves, 75% for wolves, 60% for nature mana, 40% for wood and nothing for other resources the same hex would produce 150 food, 200 wood, 15 wolves, 3 elves and 12 nature mana per turn.

The next important blurb is entitled *Your Nation* and it contains different subsections detailing the nation you play. The section ECONOMY lists your tax efficiency factor and city trade income factor as well as the *villeinage efficiency factor* which determines how much manpower you have. The NATION DATA section lists important information such as your base administration (order allowance, see section 3.1), your production efficiencies and the special nation orders available to you. The other sections are pretty self-explanatory.

Most of the blurbs you will receive will probably be about the different *Unit Types* available to your nation. Standard military units will mostly be completely described in the unit type tables for your scenario and those few which are not are only listed

with the extra information the tables do not give you. The different types of leaders and characters however will have long descriptions, mostly concerning the special orders available to them or other special abilities. As an example, here is the blurb for a Knight:

Unit type 122: Knight (human)
Can go questing.
Immune to bribe, charm and magical as well as normal fear.
A Knight has an order allowance of 4 orders per turn. He can carry objects of a total weight up to 2 and a total size no larger than 4 and is never slowed by carried weight.
Cost of unit: 50 gold.
Special powers:
The Knight will as force leader give a *leadership bonus* to units of the type(s) Heavy Infantry and Heavy Cavalry. The bonus is 25 added to unit morale at the beginning of every phase. A maximum of 4 units of a combined size of no more than 200 individuals can receive this bonus.
recruit:
The Knight may recruit units of the following type(s):
3: Heavy Infantry
9: Crossbowmen
This takes 12 phases for a unit of standard size, the base time being 6 phases and the variable time 6 phases. The recruitment can only take place in farmlands or city. You must own the position where the Knight performs the recruitment.
recruit:
The Knight may recruit units of the following type(s):
7: Heavy Cavalry
This takes 16 phases for a unit of standard size, the base time being 8 phases and the variable time 8 phases. The recruitment can only take place in farmlands or city. You must own the position where the Knight performs the recruitment.

The prose is rather poor but this is because the blurb is mostly machine generated. One thing that may seem especially odd is that the power to recruit units is listed twice. This is because the description of the knight's recruiting abilities has to be split into multiple entries because there are differences in the time it takes to recruit the different units (most other leader types have their recruiting abilities split into even more entries because of different recruiting times, different terrain requirements or other factors differing between them).

The blurb for a leader or character type will detail "basic data" such as the cost and upkeep (if any) for the unit, carrying capacity and special immunities such as immunity to illusions or bribery. For normal military (mass) units all this information can be found in the unit type tables. There is however some information which even for characters is not listed in the blurb but should be found in the unit type tables instead: These are the combat and terrain performance data of the unit.

In the description of the Wizard character type you might find mentioned that he has the power to make e.g. fire strikes:

---

firestrike:
The Wizard may by executing the *firestrike* order cause magical fire to strike all units at a position. This takes 4 phases. The maximum power that can be specified in the *firestrike* order is 3 and the target position must be within a distance of 4 hexes from the Wizard. The resource cost is 10 fire mana per hex of distance to the target plus 25 fire mana per point of power specified.

This explains how long it takes for the Wizard to cast the spell, how much power he may put into it, the maximum range to the target and the resource cost. It does not, however, really say much about the effect of a fire strike or how to write the order. This information can be found as a blurb in the section entitled *Powers*. There each special order not covered by the rule book has an entry describing the special rules governing the order and of course what the order syntax is.

3 Getting things done: Orders

Your nation, locations and units perform actions according to the *orders* you give them. At any point in the game, each location and each force leader (unit) will have a (possibly empty) list of orders to be executed. Locations and units execute their orders in parallel (see section 3.4) but each location or unit will finish the first order in its list before even looking at its next order, so the order in which the orders occur in the list is important. At the start of every turn you can add orders to the end of the

order lists of your locations and units and/or you can remove any old orders that have not been finished yet. The *nation* order list is a little different: All orders in the nation order list are executed at the same time (in parallel) and you cannot remove or change orders which your nation is executing, even when they take longer than a single turn to execute.

For a force of units, only the force leader can have orders, the other units in the force just follow him around. If you give orders to a unit which is not a force leader it will immediately break out of its current force and become its own force of only one unit. Thus to e.g. change the tactics of some units in a force your should *not* give a *tactics* order to each unit but rather give the order to the force leader or as a nation order. Similarly you should *not* use the *myname* order to change the name of your existing units, you should instead use the *name* nation order.

3.1 Writing orders

Orders are written one order per line except when they contain other, embedded orders. Before each list of orders you must write who is to receive those orders by writing the unit or location number followed by a colon on a line by itself. Nation orders must be written at the very beginning, before any unit or location orders. So for example the BK player could write something like this:

```
scuttle warships 1
scuttle transports 2

1801:
expand 3

3101:
fleewhen 6
recruit "Heavy Infantry" 100
  orders:
    tactics defend
    join 3101
  .
```

The two *scuttle* orders are nation orders (the nations scuttles some ships), then 1801 (the city Azure) is ordered to expand itself by 3 size increment and finally the unit 3101 (Lord Turquoise, a noble) is ordered to flee when at 5 wound points and to recruit a unit of Heavy Infantry with 100 individuals and give them order to change tactics to “defend” and then join his personal force (most of these orders will be further described later). The only thing which might look a bit odd at first is how the *tactics* and *join* orders are *embedded* in the *recruit* order by preceding them with the keyword “orders” on a line by itself and following them with a period on a line by itself. So the *recruit* order is not written on a single line after all, it actually takes up five lines, two of which are orders in their own right which are just embedded into the recruit order.

You cannot give an unlimited number of orders. Most orders you will give to characters which have an *order allowance*. The order allowance of each type of character is stated in its blurb, for example as in the blurb for a Knight shown in section 2.4.1 where you can see a Knight has an order allowance of 4 orders per turn. Orders embedded in other orders such as the two orders embedded in the recruit order in the example above also count against the order allowance, so in the example a total of 4 orders are counted against the order allowance of 3101. You can give orders in excess of the order allowance of your characters and to units without an order allowance, but each such order requires one *administration point*. Locations orders and nation orders always require administration points as only characters have an order allowance, so the example orders above requires 3 administration points. The number of administration points available to you will be stated in your status report. Your nation has a base number of administration points stated in your set-up report in the NATION DATA section of the blurb entitled *Your Nation* (see section 2.4.1). To this is added some administration points contributed by certain character types (typically the rulers of your nation) and finally two points for each hex in which you have a castle. See section *3.2* of the rule book for further information about administration points.

NOTE: Orders which exist purely to create atmosphere in the game such as the *name* and *myname* orders do not count towards order allowances or require administration points, they are completely free.

The rule book describes the syntax of orders in more detail in section *3.1*. The short description given above together with the examples later on should give you a pretty good idea about how to write orders though, and if you are playing by web and using the on-line order checker it will help you by spotting errors in the syntax of your submitted orders and also to keep track of your administration point usage.

3.2 Pending orders

Those orders which a unit or location does not have time to finish during the turn will be transferred to next turn and the unit or location will continue where it left off. The pending orders of each unit and location you own will be listed in the status report, for example like this:

```
3101* Lord Turquoise (Noble): 10 w.p. at 185
   Tactics: flee
   Flee when at 6 w.p. or less
   Pending orders:
      move 186 (begun-2)
      include 3116 3117
```

Here the *move* order has already been partly executed and the (begun-2) means that the order will finish in phase 2 of next turn (see section 3.4 below).

Any orders given to a unit or location with pending orders will be appended to those orders. But what if you have changed your mind and want a unit to do something different from its pending orders? Then you start the new order list for the unit with one of the special orders *break* or *clear* which are not executed as normal orders but instead result in the immediate removal of pending orders, the difference being that *break* remove all orders while *clear* leaves the order currently being executed alone. So if you wanted 3101 in the example above to finish the move to 186 but not wanted it do execute the *include* order you would use *clear*, while if you wanted 3101 to stay at 185 you would use *break*.

There are more advanced uses of *clear* and *break* as well as orders for inserting your new orders in the middle of a list of pending orders or even in a list of embedded orders in a pending order, see the rule book section *21.2*.

3.3 Comments

It is often useful to write comments along with your orders to make it easier for yourself to read them. If you are submitting orders directly to an automatic order checker you will need to write your comments such that the system ignores them. The COSMOS system will ignore anything after an "@" character, to the end of the line. So you can for example write:

```
3101:
clear        @ remove pending include
move 187     @ move to engage centaurs
```

3.4 Order execution

As stated earlier each unit or location will execute its list of orders one at a time and in the order they were given, but all units and locations act simultaneously and thus the orders of one unit will be executed in parallel with the order of all other units. This "simultaneous action" is simulated by the game engine by dividing each turn into 24 action phases and in each action phase have the units execute their orders one after the other. The sequence in which the units get to act within each action phase is determined by their *initiative*, see section *4.2* in the rule book.

Each order will take a certain number of phases to complete, from zero phases for very fast actions to several turns worth for slow actions such as getting control of a hex of high mountains. Orders do not take effect before they are completely finished, but you must pay their entire resource cost (if any) immediately when they are first started.

4 Taking care of your characters

Now that you know the basic mechanics of reading your turn report and giving orders for next turn it is time to consider what do do.

Your most important asset are your leaders and other characters and taking good care of those should always be foremost in your mind when writing your orders. "Taking care of" characters in the context of a COSMOS Fantasy game means making sure they are not killed. There are basically three ways to protect characters and you should use them all for all of your characters most of the time (expendable scouts possibly excluded).

1. Keep the tactics of the character as “flee”. Always. Really, always. The only exception is characters who are in quest mode and expected to battle monsters or whatever, they should have tactics “defend”. Just make sure that you change tactics back to “flee” immediately before a character leaves quest mode. For one more exception read on below. Tactics are described further in section 9.2 below.

2. Set a *fleewhen condition* for the character. As the very first thing you do in your first turn, or as the very first thing a new character does after being created. When a character’s fleewhen condition has been triggered and the character flees and returns home, a new fleewhen condition needs to be set as the very first thing. Setting the fleewhen condition is discussed further below in this section.

3. Keep the character together with regular troops. For characters who are force leaders this comes automatically, but never be tempted to leave those important spell-casters alone in a “safe” city behind your lines. How to move your units together in forces is discussed later in section 7.1.

The most important order used to protect your characters is the *fleewhen* order. It is usually given as an order to the character itself, such as this:

```
3101:
fleewhen 6
```

This tells 3101 to flee when his current wound level is reduced to 6 or less. Do not set fleewhen conditions too low as a fluke critical hit may easily kill off a character with 3 or 4 wound points. Set the fleewhen level two or three points below the maximum wound point level of the character but never below half the full wound points, the purpose of setting it is *not* to allow your character to participate in combat, because if you have sensibly kept tactics “flee” as suggested above the character will flee from combat before being damaged. A fleewhen condition is an extra precaution which will buy you time when you have characters fleeing home from battles lost and your home is under attack (see section *9.1* of the rule book for a description of this effect).

In the first turn when fleewhen conditions have to be set for a lot of characters you might want to use the *fleewhen* order as a nation order to set fleewhen conditions for several characters with only one order (to save their order allowance). You do it like this:

```
fleewhen 6 3101 3102 3104
```

This sets the fleewhen level of the three characters 3101, 3102 and 3104 to 6. Using *fleewhen* as a nation order is also useful if the character you want to set a fleewhen condition for is in the middle of executing an order you do not want to interrupt and start over. Just remember that you can never set the fleewhen level of a character who is currently fleeing.

At the start of the game, the BK player might give the following nation orders to set conservative *fleewhen* conditions for all his character units:

```
fleewhen 6 3101 3102 3104 3109   @ nobles, wizard, captain
fleewhen 8 3103 3108             @ priest, knight
```

Below the single occasion where you would consider using non-“flee” tactics together with a fleewhen condition for your leaders will be described. It is not as safe as keeping “flee” tactics all the time but may be necessary especially if you are playing a nation of dwarves or gnomes.

If your character is the leader of a force of small but tough fighters such a dwarves and your opponents troops are all larger but weaker, or *if* you have heavy troops up against hordes of light troops then you might need to set tactics “avoid” for your leader, but *only if you have set a fleewhen condition*. The reason for this is that the many or large opponents cannot be effectively engaged by your few or small tough fighters and therefore some of them will get through your lines and engage your leaders even though you may eventually win the battle. If your leaders are on tactics “flee” they will immediately flee the battle when they are about to be attacked, even if the attackers are weak and help is not far away. If on the other hand they have tactics “avoid” and a fleewhen condition they will try to avoid combat but will be able to withstand a few attacks by weak opponents before fleeing, giving your troops time to cut the enemy force down to a size where it can be contained and your leaders are safe.

A final advice on how to keep your characters safe: Protect your home. The location or hex which is your designated home is where your characters must flee to when forced to flee. If you lose it, they will have no place to go and will be killed. Therefore any threat to your home should be taken very seriously and you should do your utmost to protect it, or in the worst case move it somewhere safe if you can.

5 Expanding your cities

Early in the game it is important to consider expanding your cities. The benefits are easy to see: A larger city produces more trade income and more population (which in turn gives you a greater tax base). But there are a couple of things you need to take into account.

As an example let us look at the city Azure owned by the Blue Knighthood. We need to look first in the status section of the turn report to find the current status of the city:

```
1801 Azure at 185
   Size 8 of 15
   City trade rating: 10
   Income from trade this turn: 88 gold
   City walls: rating:3, strength:11
   Cost to improve city wall strength, per point: 24 gold and 48 manpower
   Cost to improve city wall rating to 4 (at strength 12): 96 gold and 192 manpower
   Cost to expand one size increment: 50 gold, 50 wood and 100 manpower
    - plus cost of expanding city walls: 33 gold and 66 manpower
```

This tells us that the current size of the city is 8 and it can be expanded as much as 7 increments to the maximum size of 15. It also tells us the cost of expanding one size increment (this can also be found in the blurb for the city, except that the cost of expanding the walls is not in the blurb as it varfies with wall rating and strength). To discover production benefits and added upkeep resulting from expanding the cuity we have to look at the blurb for the city which came in the set-up report (for cities you discover later in the game, the blurb will be in the report from the turn you first saw it):

> Location 1801: Azure (city)
> Position: 185.
> Azure can "see" its surroundings and influences control in 185. It may contain infinitely much, can be entered directly and the terrain inside is city.
> It has size 8 of 15 at the start of the game.
> Cost per size increment: 50 gold, 50 wood and 100 manpower.
> Upkeep per size increment per turn: 30 food.
> Production per size increment per turn: 10 men, 1 elves, 1 dwarves and 2 gnomes.

First of all, does it really pay to expand the city? Given enough time, any city expansion will pay off because of the added trade. But if it is late in the game you need to figure out how many turns it will take to get back the gold you invest (although in the very last turns you may find yourself expanding your cities as much as you can simply to get more victory points). In the status report we can see that expanding Azure costs 50 gold per size increment plus 33 gold for the walls, for a total of 83 gold per increment (for analyzing whether expansion pays you need not be concerned with the wood or the manpower, provided you have it of course). The city without its fortifications earns 10 gold per size increment in city trade alone and the added net cost of the walls per turn is 2 gold (3 gold minus 1 gold you get back in increased trade), so from that you will break even in about 10 turns. This is however not counting the additional tax revenue you gain from expanding your population, which is a little more difficult to compute. For the first turn it is easy: the city will produce an additional 10 men who at 30% tax rate will pay 3 gold (see section 2.3.5 above). The extra population and thus extra taxes from the city will grow from turn to turn but with diminishing speed because of the loss of population every turn (again see section 2.3.5). Eventually the extra tax revenue per turn will be considerably more than what you get in extra city trade (taxes will equal trade revenue after 4 turns for Azure and the BK nation). All in all for Azure you would about break even in 5 turns and make a profit in 6 turns.

A fortified city is much more expensive to expand than a non-fortified and for that reason many players tear down the city walls before expanding. What you should definitely avoid is to first expand the city and afterwards tear down the walls because in that way you pay for something you destroy immediately afterwards.

If we tore down the walls of Azure, the cost of expansion would be only the basic 50 gold and the net increased revenue would be 10 gold per turn rather than only 8 gold, plus the extra income for taxes. This translates into almost breaking even in 4 turns and making a profit in 5 turns.

It it was just the cost of expansion you had to take into account you would always expand you cities to maximum size at the very beginning of the game. There is however one more thing you need to consider: A larger city requires more food. From the blurb for Azure we can see that for every size increment it is expanded BK will have to supply it with an additional 30 food per turn. This may not seem a problem considering that BK has a surplus food production of 683 food per turn. But if BK expands Azure by the maximum 7 points, 210 of those 683 food will be used. Those 210 food could have been used to support 210 men in the BK army. You must always balance the need for expanding cities to gain more income to be able to afford more troops with the need for food for supporting those troops. Once you have expanded a city you cannot voluntarily

reduce its size (though it *will* be reduced if you run out of food to feed it). So the BK player must decide how many additional troops are required and thus how much food is left for supporting expanded cities.

All things considered the BK player decides to expand Azure 3 size increments. This will cost a total of 249 gold, 366 manpower and 150 wood with the current fortifications. The BK player has other uses for gold however and therefore decides to totally remove the fortifications, bringing the cost down to 150 gold, 300 manpower and 150 wood. The orders needed to do this are:

```
1801:
remove rating 3
expand 3
```

6 Recruiting new units

Throughout the game you will be recruiting new units. Both leaders and troops are units and the mechanism for recruiting them is the same.

First you need a leader capable of recruiting the type of unit you want. Look in the blurbs describing each leader type and find where the type of unit you want is mentioned under a "recruit" heading (some special units might be listed under a "summon", "animate", "conjure" or "initiate" heading instead). Assume for example that the BK player wold like to recruit Heavy Cavalry. Looking through the blurbs he finds that either a Knight, a Captain, a General or a Noble can recruit such a unit. BK has no generals at the start of the game but have all the other leader types. Looking closer at the blurbs the player discovers that a Noble can recruit faster than a Captain or a Knight and therefore decides to use one of his nobles, 3101. The exact wording of the description of the Noble's *recruit* ability pertaining to Heavy Cavalry is as follows:

> **recruit**:
> The Noble may recruit units of the following type(s):
> 7: Heavy Cavalry
> This takes 12 phases for a unit of standard size, the base time being 6 phases and the variable time 6 phases. The recruitment can only take place in farmlands or city. You must own the position where the Noble performs the recruitment.

Two restrictions on recruiting Heavy Cavalry are stated: It must be done in either farmlands or city terrain and the player must own the position where the cavalry is recruited. Such restrictions are common – only very few nations can create units outside their own territory and almost all units require a certain terrain. Luckily BK has no problem with these restrictions as 3101 is already in an owned city. Note that it would also be possible for 3101 to recruit if he was in a castle inside the city or in a farmlands hex even though the terrain inside a castle is "structure": The required terrain for a recruit order need not be present in the very location in which the recruitment is done, it is good enough if it is just present outside the location and access to the terrain is not blocked by a siege (see section *7.1* in the rule book for the exact rules on recruitment).

The order to 3101 could then simply be:

```
recruit 7
```

or:

```
recruit "Heavy Cavalry"
```

(Note that if you write the name of the unit type rather than the number you generally have to enclose it in double quotes - this is a limitation of the order checker.)

The order above would recruit a standard unit of Heavy Cavalry. In the unit type tables you can see that a standard unit of Heavy Cavalry consists of 25 individuals and costs 75 gold, 25 men, 25 horses and 125 arms. BK can afford more than this however as the nation has 550 gold, 1500 men, 204 horses and 450 arms ready for use (this is after deducting the 150 gold used in section 5 to expand the city Azure). The BK player quickly realises that the limiting factor is arms: With a cost of 5 arms per individual he can afford 90 Heavy Cavalry. The player is biting his nails in frustration over this because he would really like to recruit a unit of the maximum size allowed: 100 individuals. He needs 50 more arms but does not want to wait until next turn to recruit. Then he realises that there *is* a way to get the 50 extra arms needed.

6.1 Disbanding units to recruit others

In general you want to have an army consisting only of the heaviest units you can recruit as they usually deliver the best combat performance for your money (in upkeep and lost tax revenue). Your nation may however start the game with some light or medium units which you therefore eventually want to replace. It is therefore common to *disband* light units in the early turns of the game, with two purposes in mind:

1. Disbanding a unit immediately frees up the population in that unit and also gives you 80% of the arms and mounts used to create the unit (the gold used is not recovered).
2. Disbanding a unit means less upkeep, in food as well as in gold. By disbanding light units you can use your food to feed heavier replacement units instead.

So the BK player realises that to get 50 arms for immediate use he must disband units which cost a minimum of 63 arms to create. Taking a critical look at his starting forces he decides to disband both 50 Pikemen and 100 Crossbowmen (units 3110 and 3112), freeing up a total of 150 men and 200 arms (he might have liked to keep some of the Crossbowmen but you cannot disband only part of a unit, it is all or nothing). The simplest way to disband these two units is to use the *disband* order as a nation order:

```
disband 3110 3112
```

6.2 The real upkeep of units

The BK player can now recruit his 100 Heavy Cavalry. But can he afford to keep them? 100 Heavy Cavalry cost 60 gold and 100 food per turn in upkeep. If the BK player has read section 2.3.5 he will remember to add the lost tax revenue which is 30 gold for 100 men so the *real* upkeep in gold is 90 gold per turn. Disbanding the Pikemen and Crossbowmen saves 150 food and 25 gold in upkeep and gives an additional tax revenue of 45 gold per turn, so the net effect of all this disbanding and recruiting will be 50 food saved per turn and an extra 20 gold used per turn, and BK can easily afford that.

6.3 How long will recruiting take?

The recruit order for the Heavy Cavalry should now read:

```
recruit "Heavy Cavalry" 100
```

– the number specifying how many individuals to recruit.

Now how long can the BK expect the recruit order to take? In the blurb it is stated that recruitment “takes 12 phases for a unit of standard size, the base time being 6 phases and the variable time 6 phases”. What does this mean for a unit of size 100? The standard size is 25 individuals, so 100 individuals is 4 times the standard size. The time to complete the recruitment is then 4 times 6 phases (the “variable time”) plus another 6 phases (the “base time”) for a total of 30 phases, or more than a turn (with each turn consisting of 24 phases). So the BK player will not actually get his new unit before phase 6 of turn 2 although all the resource cost has to be paid at the beginning of turn 1.

6.4 Giving orders to units before they are recruited

With the new cavalry unit arriving one fourth into turn 2, is there any way to actually get it to do something for the last three fourths of that turn? Yes, there is, because you can include a set of orders in the recruit order which will then be given to the new unit immediately after it has been recruited. Now assume that the BK player wants the new unit to join the force of the Knight 3108 who already has a unit of cavalry, the player would write the include order as follows:

```
recruit "Heavy Cavalry" 100
  orders:
    join 3108       @ join knight
  .
```

Now BK actually freed up 150 more arms than needed when disbanding the lighter units and at the same time left the city of Sapphire completely without a garrison. So therefore BK will have the noble 3102 in the city recruit 50 Heavy Infantry as a garrison. The orders to do this are:

```
3102:
recruit "Heavy Infantry" 50
  orders:
    tactics defend
    join 3102
  .
```

The *tactics* and *join* orders will be further explained later.

6.5 Why recruit large units?

Now why recruit the largest possible unit of Heavy Cavalry? The reason is that in many respects a large unit is preferable to several smaller units of the same total number of individuals. The most important advantages are that a few, large units are easier to lead than many, small units and that most spells affecting units (such as protection spells) cost the same amount for a small unit as for a large unit. For troops with weak morale or a "tough" wound structure it is also an advantage in combat to be in large rather than small units. For troops with strong morale and the standard wound structure (such as Heavy Infantry or Heavy Cavalry) there is actually a small advantage in being in small units rather than large units in combat, so this fact should perhaps cause our BK player to reconsider his recruiting strategy. See section 9.1.2 for a further discussion of the effect of unit size in combat.

6.6 Recruiting characters

Besides recruiting troops the BK player must also consider recruiting characters. Specifically, he should recruit a lot of scouts and send them in all directions in order to find out more about what surrounds his country. Scouts are cheap (2 gold to recruit and 1 gold per turn in upkeep) so the limiting factor on how many of these you recruit in the first turn is more likely to be order allowance and availability of recruiters than anything else. The BK player will let his Captain, 3109, recruit some scouts. As scouts are individuals rather than troops there is only one scout in a scout unit and therefore no number of individuals should be given in the recruit order. A typical scout recruitment could look like this:

```
recruit "Scout"
  orders:
    move 186 187 147
  .
```

The BK player also considers recruiting more spell-casters. He can have his priest initiate acolytes in order to boost the production of the holy mana needed to protect his units or he can have his wizard initiate minor wizards to boost the production of the fire mana needed to pelt the enemy with fire strikes. Both acolytes and minor wizards are major characters and thus there is a limit to how many of these BK can have. Opting for aggression rather than protection the BK player wants to initiate a minor wizard on turn 1. A minor wizard costs 40 gold, 20 enchantment mana and 40 fire mana and the BK wizard unfortunately only has half the mana required. However, if the wizard meditates twice (this takes a total of 16 phases) he will have enough mana and thus the wizard receives the following orders:

```
meditate
meditate
initiate "Minor Wizard"
  orders:
    fleewhen 6
    meditate
  .
```

Note how orders for the new minor wizard include setting a fleewhen condition (as advocated above in section 4) and using the last phases of turn 2 to meditate (a spell-caster should *never* be inactive, he can always meditate to produce more mana).

The BK player could also consider recruiting some military leaders such as a General or two in order to be able to simultaneously have one or two expeditionary forces conquering new land and a good selection of leaders at home for quick recruitment in case replacement troops are needed or the nation suddenly finds itself under attacks. However, the BK player sensibly does not plan on moving any major leaders out until the surrounding territory has been thoroughly scouted and recruiting leaders for the home base can wait at least another turn.

7 Going forth

After you have strengthened your army and sent out your scouts you will want to leave the safety of your own cities and go forth into the world to conquer new lands. First you will need to organise your units in *forces* led by your characters (preferably those characters with leadership capability and the ability to *control*, see section 10). Then you will *move* your forces around on the map.

7.1 Organising forces

A *force* is a collection of your units which moves around and executes your orders as one entity. A force has a *leader* which will usually be a character such as a noble or a general and all orders for the force are given to the leader. Units in a force not only move around and act more or less as one unit, they also receive a leadership bonus (if the force leader has leadership capability) and are able to share any load that has to be carried (such as wounded) and share the resources carried by each other. Furthermore, to gain control of new cities and hexes a leader *must* have a force of troops with him.

There are basically two ways in which a unit can become a subordinate member of a force. Either the unit uses the *join* order to join a leader, or the leader uses an *include* or *form* order to include the unit in his force.

The *join* order is typically used embedded in a recruit order to have the newly recruited unit join its intended force leader immediately after it is created, such as in the first example in section 6.4. Or the *join* order may be used by some reinforcement troops which join a leader who is e.g. in the middle of executing a *control* order. Note that a unit can only join a force which is *at the exact same position* as itself. If the leader is inside a city and the unit which wants to join him is just outside the city the *join* will fail. A *join* will even fail if the leader a unit tries to join has begun a move which will take him away from his current position. Be extremely careful when assembling forces as accidentally sending off a leader with only half the intended number of troops is at best a waste of time and at worst a complete disaster.

The *join* order should be given a single argument: the number of the leader to join (or the number of some other unit already in his force, this will work equally well). For example, if 3111 should join the leader 3101:

```
3111:
join 3101
```

You can also use the *join* order to join a complete force to another – as the members of a force in most cases all participate in the orders executed by their leader, they will also all join another force when their leader does.

A last note on *join*: When a unit joins a force it will throw away any the orders in its list *after* the *join* order because subordinate units in forces cannot have their own list of orders. Therefore you should avoid the following:

```
3102:
recruit 3 50
  orders:
    join 3102
    tactics defend      @ WRONG PLACE!
  .
```

Here the *tactics* order will be thrown away because the join is executed first. The two orders should be switched around to have the desired effect of changing the tactics of the newly recruited unit before it joins 3101.

Most of the time you should be using the *include* and *form* order to construct forces rather than a lot of *join* orders. The *include* order simply adds some specified units to the force of the leader executing it. The *form* order does almost the same thing except that the existing force of the leader is not preserved, so after a *form* the force will consist of only those units specified in the order. Note that the requirements with respect to the positions of the leader and the units he includes are almost the same as for the *join* order: all units must be at the *exact* same position, but it is tolerated if an included unit was in the process of moving away but had not done so completely yet.

Note that unlike *join*, *include* and *form* does not join entire forces together. You will *not* get all the units of a force included in another if you just specify the force leader in the include order. An *include* or *form* order must specify the numbers of all the units to be included. If, for example, 3101 should add the entire force of 3109 as shown in section 2.3.4 to his own force he would have to execute this order:

```
include 3109 3111 3112
```

7.1.1 Setting force tactics

A force will almost always do best in combat if all the units in it (except leaders) have the same *tactics* (see section 9.2 for a discussion of tactics). Many players forget to set the tactics of new units they recruit, and as units are created with different default tactics and not necessarily with the same tactics of your starting units they end up with inefficient forces which fight as two disjoint armies rather than one. So when you include new units into a force or create a new force from scratch, *always* check that tactics are consistent. It is quite simple to give all units in a force the same tactics, the leader should just execute a tactics order like this:

```
tactics defend
```

This will change the tactics of all mass units (i.e. all non-characters) in the force to *defend*. The tactics order by default leaves the tactics of your characters alone which is desirable as you *never* want your leaders to have the same tactics as your troops. If you really want to change the tactics of a leader you should look up the format of required tactics order in the rule book (section *15.6*).

7.2 Movement

There are two orders for moving: *move* and *farmove*. The difference between these is that with *move* you have to specify each hex of the path your force should move while with *farmove* you just need to specify the final destination and the force will select the fastest route. Usually you will only use *farmove* with scouts as it is a little dangerous to have units choose their own route as in the case of several possible shortest routes a force will choose at random between them and thus possibly wander into hexes you did not expect them to go to.

An example move order could be:

```
move 186 187 188 1913
```

where the first three positions in the path are hex number and the last is the number of a location (presumably in hex 188). The force ordered to move so will attempt to visit each position, in order.

No time is required to move between a location and the hex it is in or between two locations in the same hex. A move between two hexes will take some time, typically 4 to 12 phases. The speed with which a force moves is determined by its slowest member and a force can furthermore be slowed down by carried weight (see the rule book section *11.1.1* about this). It the unity type tables for the scenario you play you will find the *move cost* for the various terrains for each unit type. To find out how long a force will take to move from one hex to another, find the highest move cost among the units in the force in each of the two terrains and then take an average of the two, rounding up.

Example: A force of Light Infantry and Medium Cavalry is moving from a plains hex to a hills hex. The infantry has move cost 6 in plains and 10 in hills. The cavalry has move cost 5 in plains and 12 in hills. The maximum move costs for the two hexes are thus 6 for the plains and 12 for the hills. The average of 6 and 12 is 9, so the move will take 9 phases for this force. The infantry alone could have made the same move in 8 phases.

If there is a river between the two hexes you will have to add the move cost for crossing a river to the time the move will take (again, you must use the cost for the slowest unit). If there is a bridge or a ford you only add the cost for that, not the cost for the river.

7.2.1 Being blocked when trying to enter a location

If a force tries to enter a location containing enemy units it will in general be *blocked*, i.e. prevented from moving in. A force will stubbornly keep re-trying a move which was blocked, but it will *not* automatically attack the units inside the location. A force like this will usually be stuck until either the garrison of the location is eliminated by two full turns of siege or (more commonly) the blocked move order is removed with a *break* order. Generally you should *not* attempt to move into a location until you have removed the units inside either by siege or by direct attack (see sections 11 and 12).

8 The orders for turn one

Here are the complete orders our example BK player has decided on for turn 1, dealing with city expansion, recruitment and scouting as well as a few other things:

```
@ fleewhen for all characters:
fleewhen 6 3101 3102 3104 3109   @ nobles, wizard, captain
fleewhen 8 3103 3108             @ priest and knight
@ disband light units for arms:
disband 3110 3112
@ remove the whole navy to save gold:
scuttle warships 1
scuttle transports 2
1801: @ Azure, will remove walls and expand
remove rating 3
expand 3
1851: @ Azure castle, remove completely
remove rating 4
3101: @ Noble in Azure, recruit cavalry
recruit "Heavy Cavalry" 100
  orders:
    join 3108       @ join knight
  .
3102: @ Noble in Sapphire, recruit HI
recruit "Heavy Infantry" 50
  orders:
    tactics defend
    join 3102
  .
3109: @ Captain in Azure, recruit scouts
recruit "Scout"
  orders:
    move 186 167 147
  .
recruit "Scout"
  orders:
    move 206 207 187 188
  .
recruit "Scout"
  orders:
    farmove 249
  .
3104: @ Wizard in Azure, initiate minor wizard
meditate
meditate
initiate "Minor Wizard"
  orders:
    fleewhen 6
    meditate
  .
3103: @ Priest in Azure, meditate for more mana
meditate
meditate
```

9 Combat

Once you venture outside your own borders your units will most likely become involved in combat, if not with the armies of other players then with some of the monster units most likely roaming around.

The key to doing well is to choose your battles carefully if at all possible. Find out the strength and movement patterns of monster units by careful scouting and only engage them when your army is a lot stronger than them. Then make sure that your troops have the right tactics (and all have the same tactics) *before* moving into a hex where you expect a battle. Predicting the movement of your opponents is a little more difficult, but at least try to find out their strength, and do not try to engage them if your strength is not superior to theirs. It is better to hide in your fortified cities while strengthening your army than trying to meet the enemy in the open when you are still too weak.

The following deals mainly with combat in the open because that is where you will most likely have your first battles. See sections 11 and 12 about how to handle fortified cities and castles.

9.1 Computing the odds

It is important to be able to predict the likely outcome of a battle in advance so you know whether to attack or to avoid engagement. In the unit type tables for the scenario you will find the combat statistics for all normal military units. The most important statistics are the *total combat rating* (listed in the column **Total**) and the *melee combat rating* (listed in the column **-Mis**). For non-missile units these two ratings are the same, but units like archers have a significantly higher total rating than melee rating. To compute the strength of your army with *defend* tactics you should use the total rating, while to compute the strength with *attack* or *charge* tactics you should use the melee rating (see section 9.2 below for a discussion of tactics).

To compute the strength of a single unit, take the combat rating of its unit type, multiply by the number of individuals in the unit and then adjust for the current combat efficiency of the unit and the wound status of the unit (both are found as percentages listed for each unit in the map notes, see section 2.2). Finally, adjust for the *combat terrain performance* of the unit type in the terrain the battle will be in, this modifier can also be found in the unit type tables.

Example: BK has a unit of 48 archers which have been in battle last turn and therefore many of its individuals are wounded. In the map notes the unit is shown with the combat data (48/72%/64%) which means that the 48 individuals have 72% of their wound points left and attack at 64% efficiency. The BK player wants to compute the combat value of this unit in a mountain hex. In the unit type tables, archers are listed with total combat rating 8 and melee combat rating 4 and with a combat performance of 94% in mountains. The strength with defend tactics of this unit is thus 8 multiplied by 48, multiplied by first 0.72, then 0.64 and finally 0.94 for a total of approximately 161. The strength with attack tactics is half of that because the melee combat rating applies, so it is around 80.

For missile troops with range 2 or 3 attacks you should reduce the total combat rating when in woods, wooded hills or jungle as only range 1 missile attacks can be made in such terrain.

Adding the strength of all the units you will arrive at the total strength of your army. You can then do the same for the opposing army in order to compute your odds. If your strength is not at least 1.5 to 2 times that of the other army you should avoid combat. If your strength is only high enough with defend tactics you should not choose attack or charge. If the computed strength of the two armies is about even, doing battle is very risky for two reasons:

1. The combat ratings used to compute them are not completely exact representations of the actual strength of your units with against those particular opponents but are computed on the basis of a sort of “average opponent”.
2. There are a lot of factors that the simple computation above does not take into account such as unit morale, special attack capabilities, effects due to different physical size and so on (see section 9.1.1 below).

Combat in COSMOS games favours the stronger army a lot. If the strength of your army is about half that of the opponent you will *not* eliminate about half of the enemies if it comes to battle. You will in fact hardly eliminate any of them, and therefore it is *never* a good idea to send small armies at the enemy in order to “gradually wear them down” – it simply will not work. For the same reason you should keep most of your units together in one or two large armies rather than have them spread out in many smaller forces. If you have the indisputably largest and strongest army in the area you can freely move around and squash all the smaller armies and hardly lose any troops. Just be prepared for quickly recruiting a new army when your glorious large army suddenly encounters an even larger army that the enemy has mustered somewhere out of sight from your scouts (you should always keep enough leaders at home to quickly recruit new troops and also enough troops in your cities to prevent the enemies from moving right in without a fight).

9.1.1 The giant ant effect

There is one important case where the rule-of-thumb calculations given in the previous section will *not* give you an accurate picture of the likely outcome of a battle. This is when the individuals on one side are physically much smaller than those on

the other side and therefore can gang up on their larger opponents. This “gang up” effect is such an important advantage for the smaller individuals that it throws off the combat ratings e.g. when dwarves meet cavalry or anyone larger than dwarves meet giant ants (and as giant ants travel in huge groups and tend to infest a lot of wilderness hexes this effect is known and feared as “the giant ant effect”).

So if you are up against very small opponents relative to your own troops you should multiply the combat rating of the enemy by a factor of two or maybe even four to be on the safe side. The way to deal with such opponents is to employ troops with *area attacks* if you have such troops at all (most human nations do not) or to have a really large number of missile troops to take out the small attackers before they even reach your lines (this can be very difficult in forest or jungle and always requires that you defend rather than attack).

9.1.2 Are large units better than small?

Many COSMOS veterans will tell you that you should recruit units with as many individuals as possible and always merge units when possible to form larger units. They will tell you that one large units, i.e. one with many individuals, is stronger in combat than the same number of individuals in two or more smaller units.

This is *not* always the case. Units which have an even progression from unwounded through light wounds, heavy wounds and incapacitated to killed (e.g. the 4-3-2-1 wound structure typical of human infantry) are best in smaller units if they are also either brave or just have a high morale. Units which have a “tough” wound structure such as requiring a relatively large number of wounds before reaching “light wounds” status or having no “incapacitated” status *or* which are cowardly and have weak morale are best in large units. The effects are not pronounced but you can perhaps gain 5-10% better combat performance by choosing the best possible size over the worst possible size.

So human light and medium infantry and cavalry should be in large units if they do not have a good leader boosting their morale but can otherwise be in small units, while human heavy infantry and cavalry should always be in small units if combat performance is the only thing that matters.

Skip the following discussion if you do not need to know why (unit) size matters.

There are two effects of large versus small units that have to be considered:

1. Large units have more stable morale than smaller units, so they cannot be made to flee as easily as small units can.
2. Large units have more individuals among which to distribute damage (wound points) and therefore the chance of any individuals being killed by a small number of attacks is smaller.

The morale effect is always an advantage for the larger units, but if your units have high morale because of good leaders or being on their home turf or they are *brave* then the morale effect is not that important as it is unlikely they will flee anyway.

The distribution of damage is not always an advantage. If the individuals in a unit have the “standard” wound structure (the same number of wounds required to bring an individual from one wound level to the next for all wound levels) then its is actually a disadvantage to distribute damage because most of the individuals’ combat performance will be lost with the first wounds each receives while the last push from “incapacitated” to “killed” does not reduce combat performance at all (it is zero in both cases). If on the other hand your individuals lose most of their combat performance with the last wounds received (e.g. because they go directly from “heavy wounds” and 30% efficiency to “killed” and 0%, or because they can just take half of their total wounds before going from “unwounded” to “light wounds”) then it is an advantage to distribute wounds and be in a large unit.

9.2 Choosing tactics

The *tactics* of each unit determines how it behaves in combat. Your leaders and characters should as stated in section 4 have either tactics *flee* or in special cases tactics *avoid* combined with a fleewhen condition. With flee or avoid tactics a unit will try to avoid being involved in combat by staying behind your other units and not advancing on the enemy. With flee tactics the unit will immediately flee if it is being attacked or if there are no units to hide behind while with avoid tactics the unit will defend itself if attacked.

Your troops should have tactics *defend*, *attack* or *charge*. With tactics *defend* they wait for the enemy to come to them and never advance upon the enemy. With *defend* they may also use their missile attacks, if any. With tactics *attack* or *charge* they will advance on the enemy to attack in melee and may never use any missile attacks. With tactics *charge* the units are at the very front of the line, charging ahead at double speed if they have *charge* ability and the terrain permits.

If two armies meet and they both have *defend* tactics nothing will happen. If one army has *defend* while the other has *attack* or *charge* then there will be a battle in which the defending army gets to shoot at the other army as it advances or charges ahead. If both armies are on attack or charge they will both advance and neither will get a chance to shoot at the other.

In almost all cases you will either want to have all your troops in a battle on *defend* or all on *attack* or *charge*. If some units have *defend* while others have not you have effectively split your army in two, and as was described earlier two small armies will lose where one large army will win.

If you have a significant number of missile troops in your army (or the opponent has many missile troops) you will want to have tactics *defend*. If you have a mixture of non-missile and missile troops you will usually try first to have tactics *defend* in the hope that the enemy will advance on your lines, but if the enemy turns out also to have tactics *defend* then you may need to switch to tactics *attack* to start a battle. It is most safe to always keep your forces on *defend* and only switch to *attack* for the battles you are sure you can win. This strategy requires switching to *attack* for a single phase and the switching back to *defend* and is accomplished with orders like this:

```
move 187
tactics attack
wait 1
tactics defend
```

Here the force expects to encounter enemies in hex 187. It is moving around with *defend* tactics and therefore when it enters hex 187 the enemy if on tactics *attack* or *charge* will advance on the force, giving the force a chance to use its missiles. If the enemy army in 187 is on *defend*, nothing will happen before (in the next phase) the force changes tactics to *attack*. The *wait* order is necessary for the force to keep attack tactics until the end of the phase where battles take place (battle only happens at the end of a phase). Then as the very first thing in the next phase the force switches tactics back to *defend*.

When you are walking around with units on tactics *attack* or *charge* you should take extra care when entering a hex with a city. If the city is fortified your units will not attack enemy units inside it regardless of your tactics. If on the other hand the city is *not* fortified your units *will* attack the units inside and this may come as a surprise to you if you did not expect your army to be fighting in "city" terrain.

Vice versa with units inside a city. If the city is fortified, the units will not advance out of it even if they have tactics *attack*. If the city is not fortified (or an enemy is successful in destroying the fortifications) units inside it *will* advance on enemies outside if they have tactics *attack*. Units with tactics *charge* will always advance out of a city or other location regardless of fortifications, so you can cause your units to sortie from a fortified location and attack enemies outside by changing their tactics to *charge* for a single phase.

10 Control

Once you have defeated the local monster groups it is time to get their land. To get control of a hex you must have a leader capable of control (this will be stated in the blurbs for your leader types). Then you must equip him with a force of troops which can help him with control (almost all leaders require troops to control). Finally, you must move him with his force to the target hex and execute the *control* order, like this:

```
move 187
control -1
```

The "-1" (minus one) in the control order tells the leader to keep trying until he succeeds (see the rule book section *14*).

Taking control of a hex can take quite a long time, anywhere from one full turn and up. Section *14.2* in the rule book describes in some detail how to calculate the time required for a *control* and it will not be repeated here. You should however know the following:

1. The required time is proportional to the move cost for the leader in the terrain of the hex, so unfavourable terrain can take a very long time to control.
2. Bringing many, fast helping units in the leaders force reduces the control time.
3. Hexes next to hexes you already own are faster to control.
4. Hexes owned by someone else take 50% longer to control than "wilderness" hexes.

If an enemy army shows up it will interrupt your control attempt, even if you defeat it in battle or do not fight it at all (both armies having *defend* tactics). If the enemy should leave or be defeated your leader will be able to resume his control attempt, but any time already used on control before the interruption will be wasted and the leader will have to start all over again. This is why you really have to clear out the monsters first.

A hex with a city, oasis or castle (or fort) cannot be controlled unless you first control that. A city containing a castle cannot be controlled unless you control the castle first. Mines, caves, stone circles and similar locations should not (and cannot) be controlled first, ownership of these follow ownership of the hex (although any monsters inside will have to be cleared out first). A leader takes control of a city or other controllable location just like you take control of a hex: by entering it and executing the *control* order. Taking control of a city is usually somewhat faster than taking control of a whole hex while taking control of a castle is even faster and typically just takes a few phases.

You must read the description of the *control* ability of your leaders very carefully as there may be restrictions on where a particular type of leader may control. Specifically, many "lesser" leaders such a a human General can only control a hex if you already own a neighbouring hex and can only control a city if you already own a hex next to the hex it is in.

11 Sieges

Before you an enter a fortified city or a castle to take control you must get rid of its garrison. There are basically two ways to do this: by *siege* or by *storm*. (Actually there is a third way: you can bribe the garrison, but this is usually prohibitively expensive.) Taking a fortified location by storm generally takes a lot more troops than taking it by siege, but it is a lot faster and also earns you some combat victory points. How to storm a fortified location is described in section 12.

11.1 How to lay siege

To lay siege to a fortified location you just need to park some troops outside it. If you have more *effective presence* outside the location than the defender and his allies, the location will be under siege. See the rule book section *2.3.2* for an exact definition of effective presence, as a rule of thumb troops have an effective presence of one for every standard size unit if they have tactics *attack* or *charge* and and half that if they have tactics *defend*. Note that it does not matter how many troops there are *inside* the location, what matters is solely the troops immediately outside.

On the turn you arrive outside a location and lay siege the effect is rather limited, and it does not matter whether you arrive late or early in the turn, merely that the location is under siege at the end of the turn. From the first full turn of siege, i.e. from the turn after the siege began, the location and the units inside it will no longer be able to draw resources from their nation pool and thus no new units can be recruited and the units inside will start to starve. At the end of the first full turn of the siege, the starving units inside the location will be *weakened*. At the end of the second full turn of siege they will be destroyed. A city under siege will lose one size increment every full turn it is under siege.

So if you wait a full two turns *after* the turn you arrive outside the location the garrison will be destroyed (unless it does not starve, e.g. un-dead troops do not care about sieges). At the start of the third turn you will be able to move in unopposed.

11.2 How to break a siege

If you understand how to lay siege to a city you also understand how to break one. All you have to do to break a siege is to move enough troops (of sufficiently large effective presence) outside the location under siege, i.e. to the same position as the siege army. Your effective presence has to be larger than the would-be siege army *after* any battles are fought, so they have to stay outside the location until the end of the phase. You do not, however, have to directly engage the enemy army in battle, if both you and they have tactics *defend* there will not be a battle and if your effective presence is high enough the siege will be broken. It is sufficient to break a siege *for just a single phase* in order to force the siege to start over, so if you can break a siege for just one phase every turn there will never be a full turn of siege and thus you will be able to get resources into the location and feed your troops, or even recruit new units.

The orders needed to move out of a location and stay outside for a single phase before moving in again are for example as follows if the location is 1801 and it is in hex 185:

```
move 185
wait 1
move 1801
```

11.3 Bringing enough troops

Being successful with a siege is largely a matter of bringing so many troops that the siege cannot be broken. Therefore you need enough troops to have such a high effective presence that even should the garrison move out for a single phase the siege will not be broken. Remember that forces with *defend* tactics have only half the effective presence of forces with *attack* or *charge* tactics. If your army has a larger effective presence than the garrison when you are both on *defend* you can keep *defend* tactics and force the garrison to attack you if they want to break the siege (so your army should be able to withstand such an attack). If you do not quite have enough troops for that you may be force to have your siege army on *attack* tactics with the result that it will attack the garrison immediately if the garrison moves out (so in that case your army should be strong enough to win over the garrison on open ground even when you are attacking and they are defending).

12 Storming fortified locations

If you are not prepared to have your troops tied up for three turns in a siege of a fortified location you must *storm* the location instead. Unless the location is very poorly garrisoned or weakly fortified a storm will require quite a large army and you should be prepared for heavy losses. To calculate exactly how many troops you need you must first calculate the combat strength of the garrison (as in section 9.1) and of your own army and then adjust for fortifications. Remember that you have to make the calculations for the terrain of the location you will be attacking, not for the terrain of the surroundings. Also remember that your troops will be attacking and thus they cannot use missile attacks.

12.1 The effect of fortifications

The effect of fortifications depend on their current effective *fortification rating* which can be found in the map notes. In the rule book section *16* there is a table of how much the combat strength of the attacker is reduced at different fortifications levels. The table is reproduced here:

	Reduction in attacker combat value						
Fortification rating	**1**	**2**	**3**	**4**	**5**	**6**	**7+**
Specialised fortifications	38.5%	61.0%	78.0%	87.5%	94.5%	97.5%	100%
Other locations	30.0%	54.0%	67.0%	78.0%	87.5%	94.5%	100%

A specialised fortification is a location such as a castle or fort and for that you should use the first line of the table while for other fortified locations such as cities or oases you should use the second line in the table. So assuming for example you are up against a city with rating 3 walls you must reduce the combat strength of your units with 67% in your calculations (i.e. multiply their strength with 0.33).

Furthermore, some unit types (mostly mounted units) fight at reduced efficiency when attacking over walls, so you should adjust for that if you brought any such troops. You should also make this adjustment for units in the garrison however as it works both ways.

Finally, if there are missile troops in the garrison you should adjust for the fact that they will get an extra point blank missile attack while your units scale the walls (just add the difference between the melee combat value and the total combat value of defending missile troops on top of their total combat value).

If you still think you can make it, you might just want to check if you cannot just walk into the location with a move order by virtue of having too many troops for the defenders to block, see the rule book section *11.7.3*. Do not try a move order if you are in doubt though, because if you miscalculate and your forces *are* blocked you will have wasted the rest of the turn.

12.2 The storm order

To get your troops to storm a location you must first give them tactics *attack* (if they do not have tactics *attack* already) and then use the *storm* order. The *storm* order does not require any arguments, it simply tells the units to attack all enemy units in fortified locations at their position. Note however that units may only attack enemies inside locations at their immediate position, they may not attack into locations within locations. So if your units are in a hex outside a city and there is a castle in the city you may attack units in the city itself but not in the castle.

The storm order in itself does not move your units, it simply enables your unit to attack units in fortified locations. If you want your force to actually enter the location after the attack you must give them a *move* order *after* the *storm* order (if you gave it before the *storm* order, the *move* order would be blocked and the *storm* order never executed).

Here is a typical complete set of orders for moving up to, storming and subsequently controlling a city (the city is location 1812 in hex 167):

```
move 167
tactics attack
storm
move 1812
tactics defend
control -1
```

Note that the troops are ordered back to tactics *defend* after they move into the city.

Here are the orders needed if you need to take a city with a castle by storm, the city is 1801 in hex 185 and the castle is 1851:

```
move 185
tactics attack
storm
move 1801
storm
move 1851
tactics defend
control -1
move 1801
control -1
```

Note that the castle has to be controlled before you can start controlling the city.

13 Going further

If you have read this far and have written orders for your nation along the way you should be off to a good start in your COSMOS Fantasy game. When you are in the process of controlling a couple of new hexes or have even taken a neutral city you will probably be looking for more to do. Then it is time to turn to the rule book and see what else the game system has to offer.

There are some major aspects of the game which have not been covered or only just touched upon by this guide: Navies, magic and questing, just to mention the most important. And many things have been left unsaid about the areas which *have* been covered, things you will need to know if you are to survive and thrive in the world of COSMOS Fantasy.